US DEPARTMENT OF AGRICULTURE
FOREST SERVICE

5240

Northeastern Area
State & Private Forestry
DIVISION OF FOREST PEST CONTROL

US FOREST SERVICE
NA - S&PF - FIELD OFFICE
FEDERAL BLDG. - US COURT HOUSE
316 ROBERT ST.
ST. PAUL, MINN. 55101

Report No. S-69-31 September 1969

RESULTS OF RED-HEADED PINE SAWFLY CONTROL WITH MALATHION ON THE MANISTEE NATIONL FOREST

By R. F. Fowler

INTRODUCTION

An outbreak of red-headed pine sawfly, Neodiprion lecontei (Fitch), was discovered in a young red pine, Pinus resinosa Ait., plantation on the Cadillac Ranger District (T22N,R11W, Sec. 27).

No insecticide other than DDT is registered for use against the red-headed pine sawfly. Since malathion is effective against European pine sawfly, Neodiprion sertifer Geoff, and larch sawfly, Pristiphora erichsonii (Htg.), a temporary label was secured to permit the use of malathion. If malathion proved effective, the data on results could be submitted to the manufacturer for use in obtaining a permanent label registration.

MATERIALS AND METHODS

Malathion 55% emulsifiable concentrate was mixed with water and applied with a mist-blower mounted on a jeep-drawn trailer. Because of errors in chemical mixing and application rates, 3 different rates, 1/2 lb. actual, 3/4 lb. actual, and 1 1/4 lb. actual malathion per acre were applied.

Twenty plots were systematically located in the plantation. At each plot 5 larval colonies or 100 colonies in the plantation were marked. Pre- and post- treatment counts of the number of larvae in each colony were made, and the results rounded to the nearest 10 larvae, except when fewer than 10 larvae were found in the colony.

RESULTS

The pre-treatment counts were made July 26. The larvae per colony ranged from 4 to 150. Treatment was conducted July 29, and post-treatment counts were made July 31. No living larvae were found in any of the marked colonies.